

FIG. 1

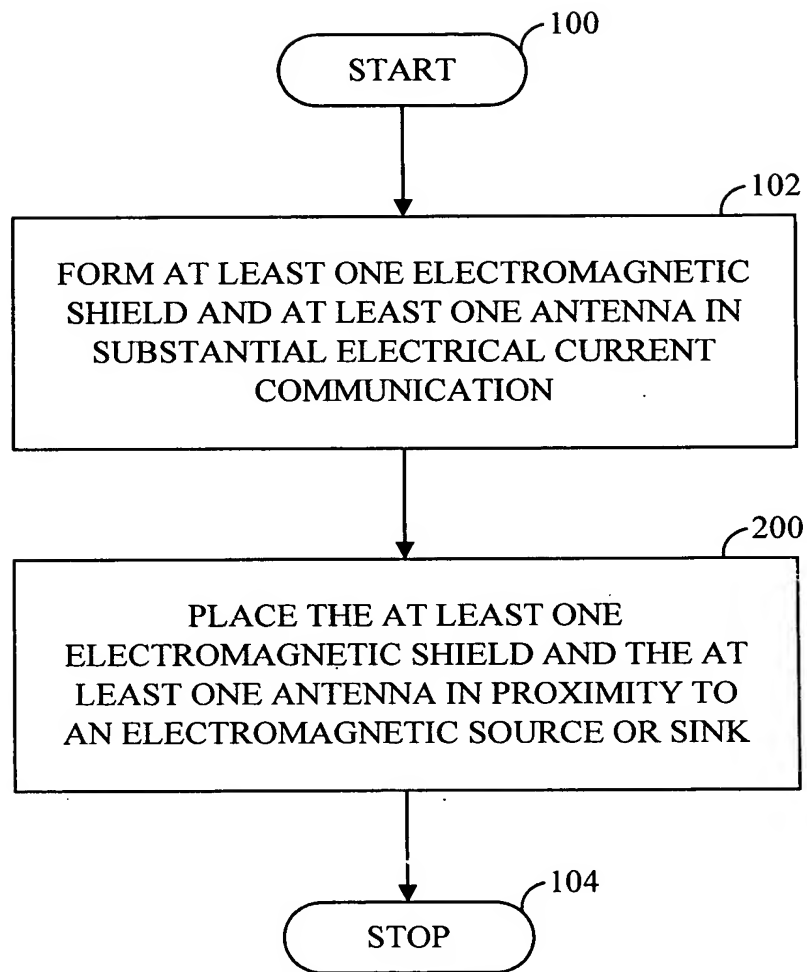


FIG. 2

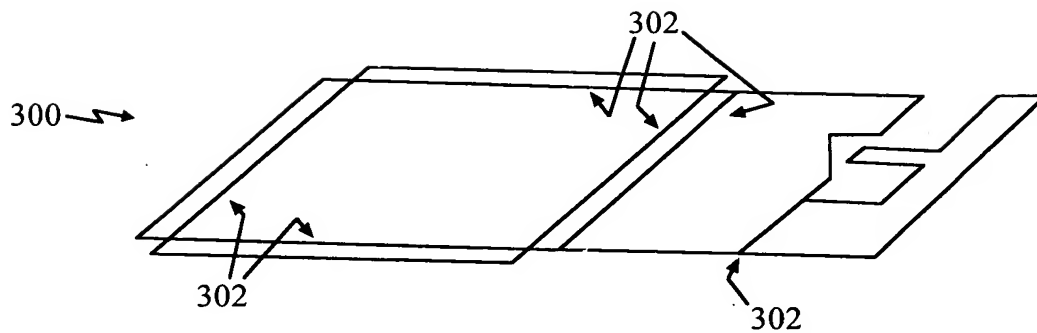


FIG. 3A

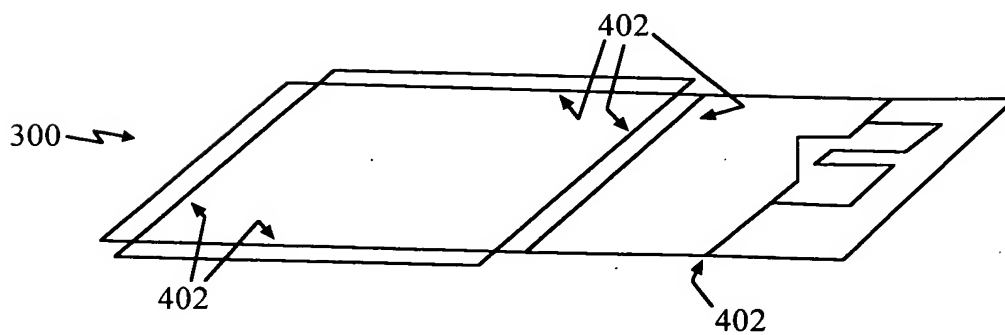


FIG. 4A

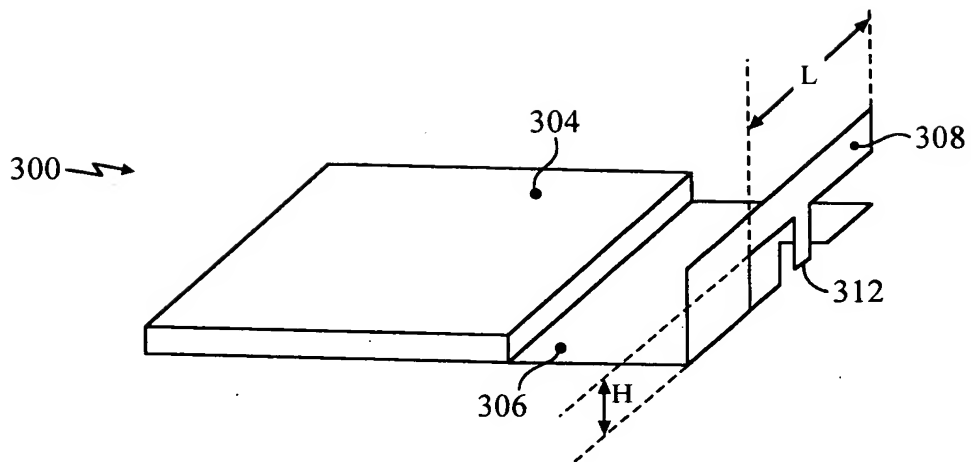


FIG. 3B

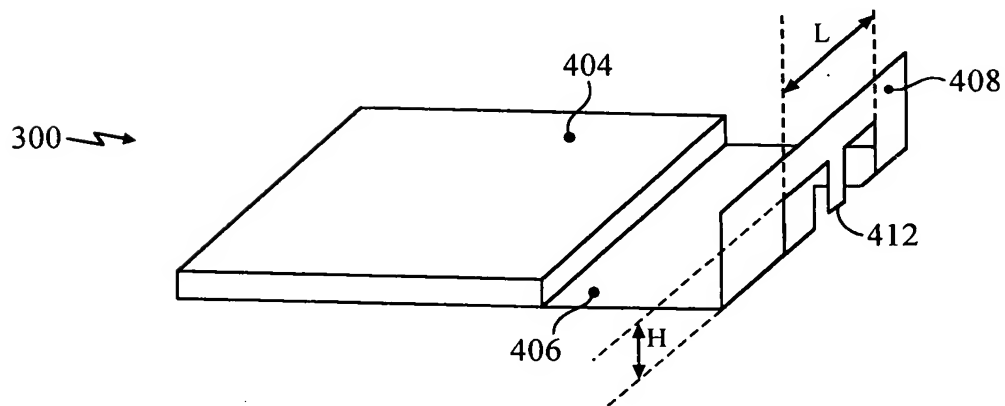


FIG. 4B

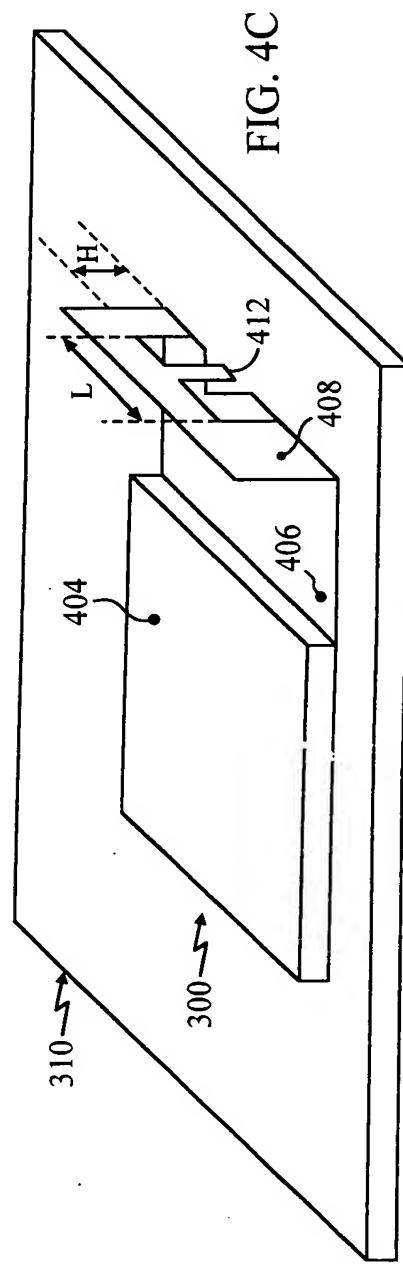
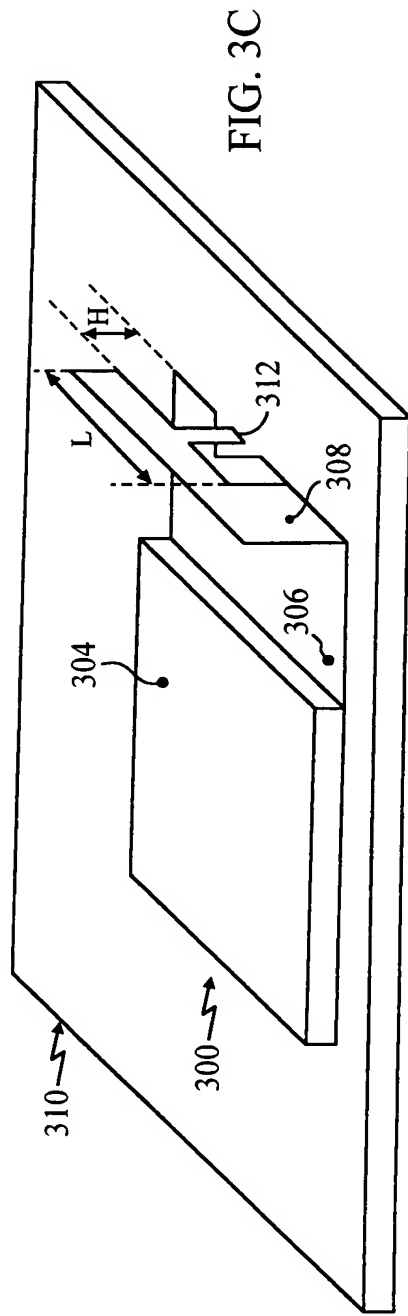


FIG. 5A

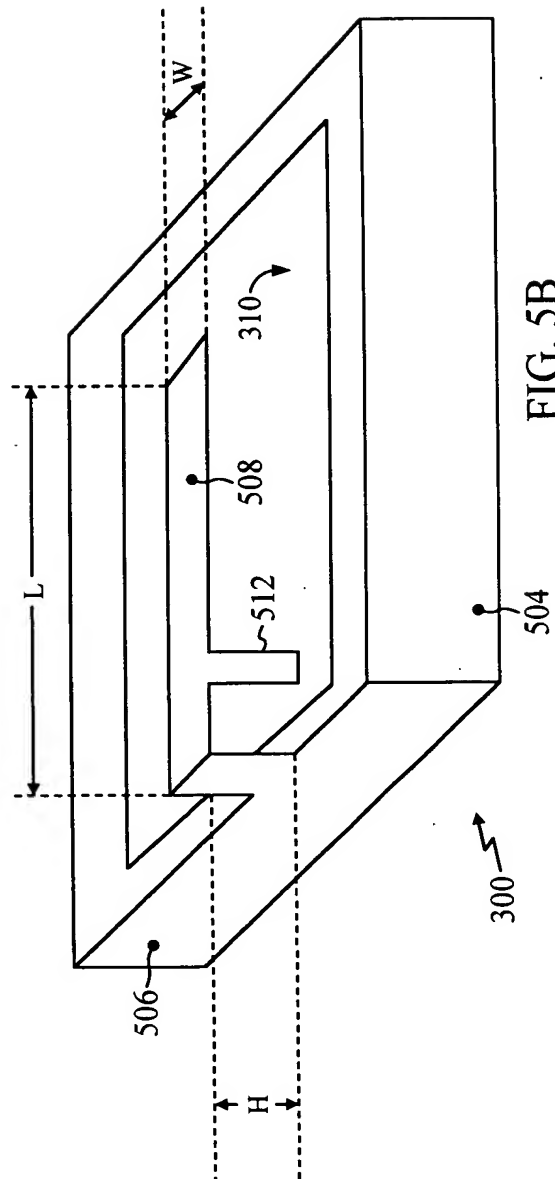
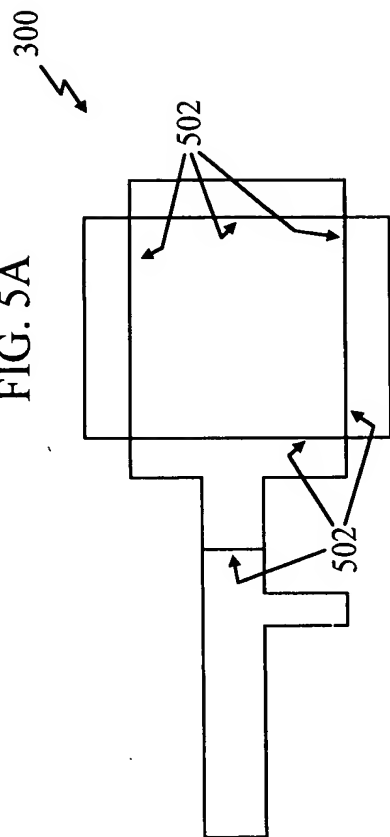


FIG. 5B

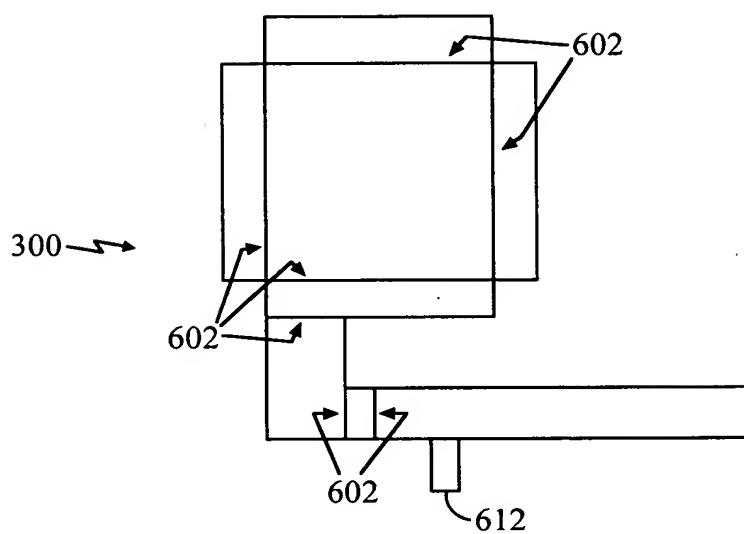


FIG. 6A

SHIELD (4 SIDES AND TOP)  
COVERS COMPONENTS ON

BOARD

PRINTED CIRCUIT  
BOARD (COMPONENTS  
ON SHIELDED SECTION,  
GROUND PLANE ON TOP  
SIDE UNDER ANTENNA)

PIFA ANTENNA

FEED POINT - TAB  
FOLDED DOWN AND  
SOLDERED TO PCB

Labels: 300, 604, 606, 608, 612, L, H, W, 310.

FIG. 6B



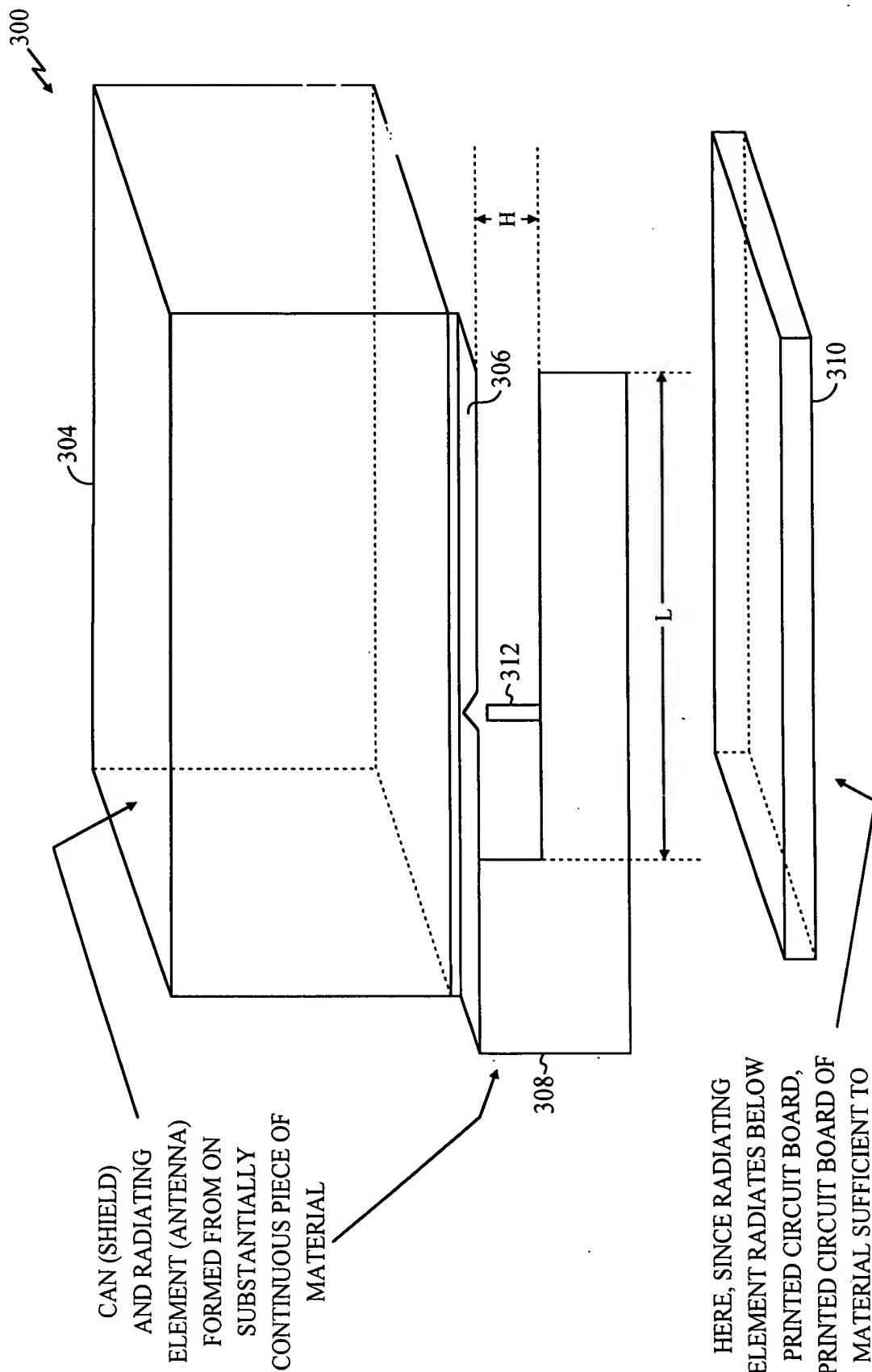
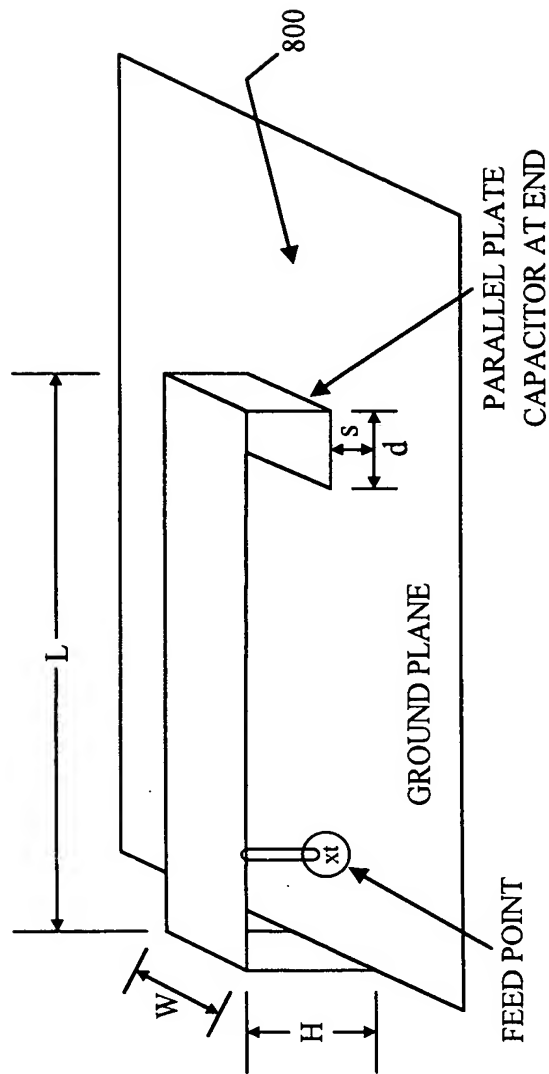


FIG. 7

# PIFA WITH INTEGRAL CAPACITOR AT OPEN END



FREQUENCY DETERMINED PRIMARILY BY  $L$  AND CAPACITANCE  
CAPACITANCE DETERMINED BY AREA  $wxd$  AND HEIGHT ABOVE GROUND  $s$   
BANDWIDTH AND EFFICIENCY INFLUENCED BY  $L$ ,  $w$ , AND  $H$

FIG. 8